

REMARKS

Applicants appreciate the Examiner's thorough consideration provided the present application. Claims 1-4, 11-14 and 25 are now present in the application. Claims 1, 2, 11, 12 and 25 have been amended. Claims 23 and 24 have been cancelled. Claims 1, 11 and 25 are independent. Reconsideration of this application, as amended, is respectfully requested.

Interview With The Examiner

An interview was conducted with the Examiner in charge of the above-identified application on March 6, 2006. Applicants appreciate the courtesy shown by the Examiner during the telephone interview.

In the interview with the Examiner, Applicants' representative proposed claim amendments to claims 1 and 11. After reviewing the proposed claim amendments, the Examiner suggested amending claim 1 to recite "using a shorting bar to individually short-circuit both ends of each of the ESD protection devices to form a current path on the corresponding one of the signal wirings" and amending claim 11 to recite "a conductive shorting bar to individually short-circuit both ends of each of the ESD protection devices to form a current path on the corresponding one of the signal wirings". The Examiner indicated that the amendments he suggested may overcome the prior art references.

As the Examiner will note, claims 1 and 11 have been amended as suggested by the Examiner and should overcome the prior art references as described hereinbelow.

Claim Rejections Under 35 U.S.C. § 102

Claims 1-4, 11-14 and 23-25 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Lee et al., U.S. Patent No. 6,791,632 (hereinafter “Lee”). Claims 1, 11 and 23-25 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Wu, U.S. Patent No. 5,233,448 (hereinafter “Wu”). These rejections are respectfully traversed.

Complete discussions of the Examiner’s rejections are set forth in the Office Action, and are not being repeated here.

In light of the foregoing amendments to the claims, Applicants respectfully submit that these rejections have been obviated and/or rendered moot. Without conceding to the propriety of the Examiner’s rejection, but merely to timely advance the prosecution of the application, as the Examiner will note, independent claims 1, 11 and 25 have been amended to address the Examiner’s rejections.

Independent claim 1 now recites a combination of steps including “using a shorting bar to individually short-circuit both ends of each of the ESD protection devices to form a current path on the corresponding one of the signal wirings.”

Independent claim 11 now recites a combination of elements including “a conductive shorting bar to individually short-circuit both ends of each of the ESD protection devices to form a current path on the corresponding one of the signal wirings.”

Independent claim 25 now recites a combination of elements including “a movable conductive shorting bar, the conductive shorting bar being movable to selectively short-circuit both ends of at least one of the ESD protection devices to form a current path on the corresponding one of the signal wirings.”

Support for the amendments to claims 1 and 11 can be found in FIG. 4 as originally filed. Support for the amendments to claim 25 can be found in paragraph [0058] of the specification and FIG. 4 as originally filed. Applicants respectfully submit that the combinations of steps and elements set forth in amended claims 1, 11 and 25 are not disclosed or suggested by the references relied on by the Examiner.

Claims 1 and 11

Lee discloses a protection circuit for a TFT-LCD. In particular, the Examiner referred to the gate shorting line GSL as the shoring bar of claims 1 and 11 and referred to the ESD devices GESD1-768 as the ESD devices of claims 1 and 11. As shown in FIG. 4 of Lee, the gate shorting line GSL is simply directly connected to one (right) end of the ESD devices GESD1-768. However, the gate shorting line GSL does not short both ends of each of the ESD devices GESD1-768. Accordingly, Lee fails to teach “using a shorting bar to individually short-circuit both ends of each of the ESD protection devices to form a current path on the corresponding one of the signal wirings” as recited in amended claim 1 and “a conductive shorting bar to individually short-circuit both ends of each of the ESD protection devices to form a current path on the corresponding one of the signal wirings” as recited in amended claim 11.

Wu discloses an LCD panel. As shown in FIG. 6 of Wu, the LCD panel includes a first discharge ring 24 connected to the top end of the ESD device 26, and a second discharge ring 42 connected to the pad 20 and the bottom end of the ESD device 26 via the line 44. Wu also discloses that the first discharge ring 24 and the line 44 are isolated (therefore the first discharge ring 24 and second discharge ring 42 are isolated, too)(see col. 4, lines 54-55). However, Wu nowhere discloses any conductive shoring bar to short-circuit both ends of the ESD device 26.

Accordingly, Wu also fails to teach “using a shorting bar to individually short-circuit both ends of each of the ESD protection devices to form a current path on the corresponding one of the signal wirings” as recited in amended claim 1 and “a conductive shorting bar to individually short-circuit both ends of each of the ESD protection devices to form a current path on the corresponding one of the signal wirings” as recited in amended claim 11.

Claim 25

The Examiner referred to the gate shorting line GSL as the shoring bar of claim 25. However, the gate shorting line GSL is formed on the substrate. Therefore, the gate shorting line GSL is fixed on the substrate and non-movable. The Examiner also referred to the first discharge ring 24 and the second discharge ring 42 as the shorting bar of claim 25. However, the first discharge ring 24 and the second discharge ring 42 are formed on the substrate, and therefore are fixed on the substrate and non-movable. Unlike Lee’s non-movable gate shorting line GSL or Wu’s non-movable ring 24 or 42, the conductive shorting bar as recited in claim 25 is movable to selectively short-circuit both ends of at least one of the ESD protection devices to form a current path on the corresponding one of the signal wirings. Accordingly, both Lee and Wu fail to teach “a movable conductive shorting bar, the conductive shorting bar being movable to selectively short-circuit both ends of at least one of the ESD protection devices to form a current path on the corresponding one of the signal wirings” as recited in amended claim 25.

Since Lee and Wu fail to teach at least the above-noted features of amended independent claims 1, 11 and 25, Applicants respectfully submit that amended independent claims 1, 11 and 25 and their dependent claims (due to their dependency) are not anticipated by Lee or Wu.

Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 102 are respectfully requested.

CONCLUSION

All the stated grounds of rejection have been properly traversed and/or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently pending rejections and that they be withdrawn.

It is believed that a full and complete response has been made to the Office Action, and that as such, the Examiner is respectfully requested to send the application to Issue.

In the event there are any matters remaining in this application, the Examiner is invited to contact the undersigned at (703) 205-8000 in the Washington, D.C. area.

Pursuant to 37 C.F.R. §§ 1.17 and 1.136(a), Applicants respectfully petition for a one (1) month extension of time for filing a response in connection with the present application and the required fee of \$120.00 is attached herewith.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

Dated: April 5, 2006

Respectfully submitted,

By Esther H. Chong
Esther H. Chong
Registration No.: 40,953
BIRCH, STEWART, KOLASCH & BIRCH, LLP
8110 Gatehouse Road
Suite 100 East
P.O. Box 747
Falls Church, Virginia 22040-0747
(703) 205-8000
Attorney for Applicant

by